

IN THE CLAIMS

Please amend claims 22, 32, 34, and 35 as set forth below. Please cancel claims 1-8, 11-16, 19-21, 29-31, 33, 36, 39, and 42-44 without prejudice or disclaimer. Claims 9-10 and 17-18 were previously canceled. All pending claims and their present status are produced below.

1 1-21. (Canceled)

1 22. (Currently amended) A driver for driving an LCD (liquid crystal display)
2 panel associated with i number of scan lines and j number of column lines, said i and j being
3 positive integers not less than 2, the driver comprising:

4 a display data memory for storing display data, the display data memory arranged in a
5 matrix corresponding to the i number of the scan lines and the j number of the
6 column lines and concurrently outputting the display data corresponding to a
7 scan block corresponding to m number of the scan lines and said j number of
8 the column lines, said m being a positive integer not less than 2 and not more
9 than i ; and

10 a column signal circuit for generating column display signals by modifying the
11 concurrently output display data, the column display signals generating a
12 display on the LCD panel in accordance with the concurrently output display
13 data ~~The driver of claim 14~~, wherein said column signal circuit comprises:
14 an XOR (exclusive OR) block including j number of XOR sets for performing
15 exclusive OR operations between the concurrently output display data
16 and orthogonal function data to determine mismatches, each XOR set

17 including m number of XOR gates corresponding to the m number of
18 the scan lines in each scan block.

1 23. (Previously presented) The driver of claim 22, wherein said column signal
2 circuit further comprises:

3 a decoder block including j number of decoders, the decoders for decoding results of
4 the exclusive OR operations to determine mismatch numbers.

1 24. (Previously presented) The driver of claim 23, wherein said column signal
2 circuit further comprises:

3 a level-shifter block including j number of level shifters, the level shifters for shifting
4 the data levels of the mismatch numbers to different data levels.

1 25. (Previously presented) The driver of claim 24, wherein said column signal
2 circuit further comprises:

3 a voltage selector block including j number of voltage selectors, the voltage selectors
4 for selecting voltage levels corresponding to the mismatch numbers.

1 26. (Previously presented) The driver of claim 25, wherein m is 3.

1 27. (Previously presented) The driver of claim 26, wherein each of said level
2 shifters is a 1-bit level shifter.

1 28. (Previously presented) The driver of claim 27, wherein each of said voltage
2 selectors selects one voltage level from 2 voltage levels.

1 29-31. (Canceled)

1 32. (Currently amended) A liquid crystal display, comprising:

2 a LCD (liquid crystal display) panel associated with i number of scan lines and j
3 number of column lines, said i and j being positive integers not less than 2;
4 a row driver for selecting the scan lines;
5 a column driver for driving the column lines;
6 a display data memory for storing display data, the display data memory arranged in a
7 matrix corresponding to the i number of the scan lines and the j number of the
8 column lines and concurrently outputting the display data corresponding to a
9 scan block corresponding to m number of the scan lines and said j number of
10 the column lines, said m being a positive integer not less than 2 and not more
11 than i ; and
12 a column signal circuit for generating column display signals by modifying the
13 concurrently output display data, the column display signals generating a
14 display on the LCD panel in accordance with the concurrently output display
15 data ~~The liquid crystal display of claim 29, wherein the column signal circuit~~
16 comprises:
17 an XOR (exclusive OR) block including j number of XOR sets for performing
18 exclusive OR operations between the concurrently output display data
19 and orthogonal function data to determine mismatches, each XOR set
20 including m number of XOR gates corresponding to the m number of
21 the scan lines in each scan block;
22 a decoder block including j number of decoders, the decoders for decoding
23 results of the exclusive OR operations to determine mismatch
24 numbers;

25 a level-shifter block including j number of level shifters, the level shifters for
26 shifting the data levels of the mismatch numbers to different data
27 levels; and
28 a voltage selector block including j number of voltage selectors, the voltage
29 selectors for selecting voltage levels corresponding to the mismatch
30 numbers.

1 33. (Canceled)

1 34. (Currently amended) A method for driving an LCD (liquid crystal display)
2 panel associated with i number of scan lines and j number of column lines, said i and j
3 being positive integers not less than 2, the method comprising the steps of:
4 concurrently retrieving display data from a scan block of a display data memory, the
5 display data memory arranged in a matrix corresponding to the i number of
6 the scan lines and the j number of the column lines and the scan block
7 corresponding to m number of the scan lines and said j number of the column
8 lines, said m being a positive integer not less than 2 and not more than i ; and
9 generating column display signals by modifying the concurrently retrieved display
10 data, the column display signals generating a display on the LCD panel in
11 accordance with the concurrently retrieved display data, wherein modifying
12 the concurrently retrieved display data comprises applying orthogonal
13 function data to the concurrently retrieved display data by performing
14 exclusive OR operations between said concurrently retrieved display data and
15 said orthogonal function data to determine mismatches ~~The method of claim-~~
16 3, wherein the exclusive OR operations are performed on said concurrently

17 retrieved display data without storing said concurrently retrieved display data
18 in data latches prior to the exclusive OR operations.

1 35. (Currently amended) A method for driving an LCD (liquid crystal display)
2 panel associated with i number of scan lines and j number of column lines, said i and j
3 being positive integers not less than 2, the method comprising the steps of:
4 concurrently retrieving display data from a scan block of a display data memory, the
5 display data memory arranged in a matrix corresponding to the i number of
6 the scan lines and the j number of the column lines and the scan block
7 corresponding to m number of the scan lines and said j number of the column
8 lines, said m being a positive integer not less than 2 and not more than i ; and
9 generating column display signals by modifying the concurrently retrieved display
10 data, the column display signals generating a display on the LCD panel in
11 accordance with the concurrently retrieved display data, wherein generating
12 column display signals comprises:
13 applying orthogonal function data to the concurrently retrieved display data by
14 performing exclusive OR operations between said concurrently
15 retrieved display data and said orthogonal function data;
16 decoding results of the exclusive OR operations to determine mismatch
17 numbers; and
18 shifting the data levels of the mismatch numbers to different data levels ~~The~~
19 ~~method of claim 5~~, wherein the data levels of the mismatch numbers
20 are shifted without storing the mismatch numbers in output latches
21 prior to the step of shifting the data levels of the mismatch numbers.

1 36. (Canceled)

1 37. (Previously presented) The driver of claim 22, wherein the XOR block is
2 directly coupled to the display data memory to perform the exclusive OR operations on said
3 concurrently output display data without storing said concurrently output display data in data
4 latches prior to the exclusive OR operations.

1 38. (Previously presented) The driver of claim 24, wherein the level-shifter
2 block is directly coupled to the decoder block to shift the data levels of the mismatch
3 numbers to different data levels without storing the mismatch numbers in output latches.

1 39. (Canceled)

1 40. (Previously presented) The liquid crystal display of claim 32, wherein the
2 XOR block is directly coupled to the display data memory to perform the exclusive OR
3 operations on said concurrently output display data without storing said concurrently output
4 display data in data latches prior to the exclusive OR operations.

1 41. (Previously presented) The liquid crystal display of claim 32, wherein the
2 level-shifter block is directly coupled to the decoder block to shift the data levels of the
3 mismatch numbers to different data levels without storing the mismatch numbers in output
4 latches.

1 42-44. (Canceled)